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## 5.3 - Biological Resources

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### 5.3.1 - Introduction

This section describes the existing biological resources setting at the project site and the potential effects from project implementation on biological resources in the area. Descriptions and analysis in this section are based on information contained in two biological assessments prepared by Coastal Resources Management, the Wetlands Delineation prepared by Michael Brandman Associates, and the Terrestrial Biological Resource Assessment prepared by Michael Brandman Associates, all included in this REIR as **Appendix D**.

### 5.3.2 - Regulatory Setting

A number of federal and state laws and regulations govern the construction and operational activities of the proposed project.

**Clean Water Act.** This Act (33 United States Code [U.S.C.] Section 1344) provides for the restoration and maintenance of the physical, chemical, and biological integrity of the nation's waters. Activities that have the potential to discharge dredge or fill materials into Waters of the U.S. are regulated under Section 404 of the Act, as administered by the U.S. Army Corps of Engineers (USACE). Section 401 of the Act requires that a water quality certification or waiver be obtained from the governing regional water quality control board (RWQCB) before issuance of Section 404 permits. Section 402 of the Act establishes the National Pollutant Discharge Elimination System (NPDES) that is the authority for the permit system administered by the US Environmental Protection Agency (EPA) and state water quality regulatory agencies. Permits for discharges are officially called NPDES permits.

**California Porter-Cologne Act.** This Act (State Water Code Sections 13000 et seq.) is the basic water quality control law for California and works in concert with the federal Clean Water Act. The state act is implemented by the California State Water Resources Control Board (SWRCB) and its nine regional boards, which implement the permit provisions of Section 402 of the federal act. Anyone who is discharging waste or proposing to discharge waste that could affect the quality of state waters must file a "report of waste discharge" with the governing RWQCB. The Clean Water Act and the Porter-Cologne Act together form the authority for the SWRCB and RWQCB to issue storm water permits for construction and operation of facilities. One provision of those permits is the preparation of Stormwater Pollution Prevention Plans (SWPPPs) and post-construction Water Quality Management Plans, which reduce the potential for impacts associated with runoff from project sites.

**Rivers and Harbors Appropriations Act.** This Act regulates construction in navigable waters of the U.S., including dredging, filling, and structures. Section 10 of the Act requires permits from the USACE for all structures, such as docks, jetties, and breakwalls, and activities, such as dredging, that could affect navigation.

**Federal Endangered Species Act.** The Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1543), as amended, provides for the conservation of endangered and threatened species and the ecosystems they inhabit. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share responsibilities for administering the ESA. Section 9 of the Act prohibits taking of species federally listed as threatened or endangered. (A take is broadly defined to include harassment, killing, and collecting individuals and modifying or degrading habitat in ways detrimental to the species.

**Magnuson-Stevens Fishery Conservation and Management Act.** The Magnuson-Stevens Fishery Management and Conservation Act as amended (FR 62, 244, December 19, 1997) directs the NMFS, regional fishery management councils, and federal action agencies to identify and protect important marine and anadromous (migrating) fish habitat, with the goal of maintaining sustainable fisheries. Fisheries management councils, with assistance from NMFS, are required to delineate essential fish habitat (EFH) for all managed species. Coastal embayments such as Newport Bay, especially those that support eelgrass, are EFH for a number of managed species. An assessment of EFH for the Marina Park project is necessary for conformance with the Magnuson-Stevens Fishery Management and Conservation Act.

**Migratory Bird Treaty Act of 1918 (MBTA).** This Act (16 USC 703-712; 50 CFR 10), as amended, prohibits the taking of migratory birds unless specifically authorized by the Secretary of the Interior (e.g., designated seasonal hunting). The Act also applies to removal of nests occupied by migratory birds during the breeding season. This regulation affects construction and maintenance activities that have the potential to affect nesting birds, whether through vegetation removal, land clearing, or other construction- related disturbance.

**Marine Mammal Protection Act.** The MMPA of 1972 sets up a management regime to reduce marine mammal mortalities and injuries in their interactions with fisheries (e.g., gear entanglement) and regulates scientific research in the wild. NMFS and the USFWS administer the MMPA. NMFS is responsible for the management and conservation of whales and dolphins (cetaceans) and pinnipeds other than the walrus. All of the marine mammal species found in and near Newport Bay are under the jurisdiction of NMFS.

**California Endangered Species Act.** This Act (California Fish and Game Code Section 2050 *et seq.*) provides for the protection of rare, threatened, and endangered plants and animals, as recognized by the California Department of Fish and Game (CDFG). State lead agencies must consult with CDFG during the CEQA process if state-listed threatened or endangered species are present and could be affected by the Project.

**California Coastal Act (CCA).** This act (Public Resources Code Division 20) governs development and management of the coastal zone, and is California's implementing act for the federal Coastal Zone Management Act. The CCA provides the basis for protection of land and marine resources within the California coastal zone, including wetlands, fisheries, and beaches. CCA sections relevant

to the protection of natural resources include 30231 (maintenance of biological productivity and water quality), 30230 (protection of marine resources), and 30240 (protection of environmentally sensitive areas).

**Executive Order 13112 Invasive Species.** This Executive Order (EO), signed in 1999, requires federal agencies to identify actions that may affect the status of invasive species and, to the extent feasible, prevent the introduction of such species. The agencies are also required to control and monitor populations of invasive species, among other requirements. The EO established an Invasive Species Council to prepare a National Invasive Species Management Plan, which is one of the tools for the management of such invasive species as *Caulerpa taxifolia*.

### 5.3.3 - Existing Conditions

This description of existing biological conditions addresses habitat types, plants, animals, and sensitive species at both the Marina Park project site (Sand Disposal Site 1) and at the other sand disposal sites: Site 2 (between 40<sup>th</sup> and 52<sup>nd</sup> streets), Site 3 (between 6<sup>th</sup> and 16<sup>th</sup> streets), Site 4 (the beach at Newport Pier), Site 5 (the beach at China Cove), and the LA-3 ocean disposal site (see Section 3.4). The descriptions below summarize and are based upon the technical reports contained in **Appendix D**.

#### Habitat Types

##### **Project Site**

The project site (**Exhibit 5.3-1**) is largely developed and contains no natural habitat types other than sandy beach, intertidal, and subtidal areas, which comprise less than three acres. The sandy beach is cleaned and groomed regularly by the City, and thus does not constitute wildlife habitat other than a resting area for shorebirds. The strand of beach is approximately 60 feet wide and runs along the northern portion of the property for approximately 1,400 feet.

Intertidal habitat consists of the portion of the beach located between the lowest observed water level (LOWL, measured over the past 19 years) to the high tide line (HTL, typically +7 feet mean sea level [MSL]). Intertidal habitat in the project area consists of fine sand, mud, and detritus deposited by tidal currents. Sediments in this habitat are submerged and exposed twice a day by the tides.

Subtidal habitat is located immediately seaward of Intertidal Habitat in the immediate area of the proposed marina, and is constantly submerged with shallow water. The subtidal habitat in the project area consists of sandy and muddy areas with relatively little vegetative cover. Subtidal water depths in the project area range from -2.0 ft to approximately -12 ft Mean Lower Low Water (MLLW).

The rest of the site consists of ornamental landscaping, turf, and disturbed/developed areas (buildings, tennis courts, and paved areas). These areas provide little or no suitable habitat for native wildlife species. The project site does not provide wildlife movement corridors or connectivity between large areas of open space on a local or regional scale. A recent survey of the project site (Hamilton Biological 2009; **Appendix D.2**) did not note any suitable nesting habitat on the site for species of

concern (e.g., herons). No habitat protected under the Orange County Coastal-Central NCCP/HCP is present on the site.

### ***Sand Disposal Sites***

The four sand disposal sites at beaches outside the project site include sandy beach, intertidal beach, subtidal shallow water, and, in the case of Site 2 and China Cove, rocky habitat in the form of groins (Site 2) and rock outcrops (Site 5, China Cove). No habitat protected under the Orange County Coastal-Central NCCP/HCP is present on any of the sites. Sandy beaches at the Newport Pier site (Site 4) and Site 3 are groomed by the City and heavily used much of the year, and thus do not constitute wildlife habitat other than resting areas for shorebirds. The sandy beach at China Cove site is not regularly groomed but is closely surrounded by residential development. The beach at Site 2 is lightly used and requires less frequent grooming than Site 3 and the Newport Pier site.

The middle and low intertidal zones provide more consistent tidal inundation and support a variety of wildlife, principally burrowing species of invertebrates that shorebirds utilize as their food source. Two of the sand disposal sites, 2 and 3, are subtidal sites just offshore of oceanfront beaches. Subtidal beach habitats are high-energy locations generally characterized by turbid waters and active sand movement as a result of ocean waves and currents.

The LA-3 ocean disposal site, which may be used to dispose of some of the project-generated sand, is located in open coastal waters approximately 4.5 miles off the coast of Newport Beach. It includes water column habitat approximately 1,600 feet deep and soft sandy silt bottom (benthic) habitat.

### ***On-Site Jurisdictional Waters and Wetlands***

The project site lies within Newport Harbor, a traditionally navigable water that is considered jurisdictional by regulatory agencies. Based on the 2009 Delineation of Jurisdictional Waters and Wetlands for the proposed project site (**Appendix D.4**), the shallow marine habitat within Newport Harbor that overlaps with the project site boundary falls under the jurisdiction of the USACE pursuant to Section 10 of the Rivers and Harbors Act, RWQCB pursuant to Section 401 of the CWA, and the City of Newport Beach CLUP pursuant to the CCA. The delineation concluded that none of the project area could be considered jurisdictional wetlands for federal (USACE) purposes because the required wetlands characteristics are not present. Specifically, although the area is subject to periodic inundation, neither hydric soils nor characteristic wetlands vegetation are present on the site.

Wetlands in California's Coastal Zone are regulated under the California Coastal Act (CCA) of 1976, which is administered by the CCC. Section 30121 of the CCA defines "wetlands" as "*lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.*"

Subsequently, the term wetland was further and more explicitly defined in Title 14 California Code of Regulations Section 13577(b):

*... land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated soil at some time during each year and their location within, or adjacent to, vegetated wetland or deepwater habitats.<sup>1</sup>*

On the basis of the above definitions, the CCC considers a wetland to be any area that is sufficiently wet for a long enough period of time to promote the formation of hydric soils or a predominance of hydrophytic vegetation. The Coastal Commission requires wetland identification and delineation to be based on the definition within its regulation. A one parameter approach must be followed to identify and delineate the geographic extent of wetland boundaries. The parameter used can be either (1) conditions that promote the formation of hydric soils, which are generally demonstrated by field indicators of hydric soils, or (2) the presence of a predominance of hydrophytes. Based on CCC regulations and guidance, wetlands are not present on the project site because neither hydric soils nor hydrophytic vegetation are present, suggesting that the period of inundation is insufficient to form indicia of wetland conditions.

### ***Sensitive Habitats in the Project Vicinity***

Newport Bay is considered sensitive marine habitat and afforded protection to conserve and protect their resources. Upper Newport Bay is also a State of California Marine Protected Area and is designated as a State Marine Park. Newport Bay is an estuary and supports extensive eelgrass beds, both of which are considered habitat areas of particular concern (HAPC) for various federally managed fish species (see below). The project site is not otherwise designated as sensitive habitat, nor is any nearby portion of Newport Bay. China Cove and the Balboa Peninsula are not located within the boundaries of City, State, or Federal marine protected areas (MPAs), nor are they identified in any of the three current proposals to update the limits of MPAs in the South Coast Study Region. The City of Newport Beach Coastal Land Use Plan (City of Newport Beach, 2009) identifies giant kelp (*Macrocystis pyrifera*) beds along the west jetty in the Newport Harbor Entrance Channel as *Environmental Study Area Number 13*, because 1) kelp forests afford protection and cover for many marine invertebrates and fishes, 2) they are a persistent feature within the Entrance Channel, and 3) there is a potential for kelp to be affected by future dredging activity (unrelated to the Marina Park project) in the Entrance Channel.

The Newport Submarine Canyon is a unique coastal feature, believed to have been formed by the ancestral Santa Ana River, that begins immediately seaward of the Newport Pier, and which thus could be affected by sand disposal activities. Depths in the canyon increase rapidly moving offshore, to 100 meters (300 ft) at a distance of 1,300 meters (3,900 ft) from shore. This geological feature is

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<sup>1</sup> Guidance: “CCC Wetland Delineation Rationale – Method” at section 2.1

the exit pathway for southward-moving sands transported through littoral drift currents; the groin field on the West Newport beaches (including sand disposal Site A) represents the U.S. Army Corps of Engineers' effort to stop the sand loss, which has been partially successful. Biologically, the submarine canyon is unique because it acts as a pathway for cold, nutrient-rich waters that upwell from deeper offshore waters to the shallower nearshore shelf. Additionally, the Canyon acts as a pathway along which deeper water species of fish, squid, shark, and jellyfish sometimes move close to shore. Although it is not a protected habitat, the canyon is an important fishing zone for the Newport Dory Fleet.

## Vegetation

### Project Site

Vegetation on the project site consists entirely of turf and ornamental landscaping between structures, in parkways, and around public use areas, and occasional weeds. Several specimens of white bottlebrush (*Callistemon salignus*), weeping fig (*Ficus benjamina*), Peruvian pepper (*Schinus molle*), and ornamental palm trees are scattered throughout the property. A hedge of ornamental shrubs separates the public beach from the mobile home park, and ornamental palm trees line the sidewalk that borders the public beach. These trees and ornamental vegetation do not include any native vegetation and provide only limited habitat value, primarily as cover and perching areas for birds and common terrestrial wildlife that are normally associated with developed areas (**Appendix D.1**). A long strip of turf extends between the sidewalk and the tennis courts along West Balboa Boulevard, and several patches of turf are scattered among the mobile homes. The sandy beach supports no vegetation because of the heavy use, frequent grooming, and absence of a dune zone, where most beach vegetation normally is found.

The shallow subtidal zone fronting the sand beach shoreline in the project site is occasionally vegetated by green algae (*Enteromorpha* sp). At deeper depths, red and brown algae are more common. No eelgrass (*Zostera marina*) was observed in the waters fronting the project site, although eelgrass is widespread in Newport Harbor.

### Sand Disposal Sites

According to the City's biological study of the sand disposal sites (**Appendix D.3**), the sandy beaches at the project site and the Newport Pier and China Cove sand disposal sites do not support any vegetation. The beaches at sites 2 and 3 support some dune vegetation, but as the proposed project would only affect the subtidal area, that vegetation is outside the project's area of potential influence. The intertidal and subtidal areas of sites 2 and 3, where sand disposal could occur, have too much wave action and sand motion to permit aquatic vegetation to occur, except on rocky surfaces such as groins. The LA-3 site is too deep to support vegetation other than microscopic floating algae (phytoplankton; USACE & USEPA 2004).

At Site 2 and China Cove, some aquatic vegetation exists on the surfaces of groins and rock outcrops. Rock groins at Site 2 provide habitat for some intertidal and subtidal species of algae, but sand movement scours these rocks, creating stressful conditions that result in highly variable abundances

over the course of a season and between years. The China Cove sand disposal site includes hard substrate in the form of rocky outcrops and concrete bulkheads. These areas support a similar array of plants as the groins at Site 2, but a lesser degree of sand scouring allows more species to flourish, including the brown alga *Sargassum muticum*. In addition, the subtidal area off China Cove, in the Newport Bay entrance channel, supports a rich bed of eelgrass.

## Wildlife

### Project Site

No terrestrial amphibian or reptile species were observed during the field survey (**Appendix D.1**), and few would be expected to occur due to lack of suitable habitat. The site is, however, likely to support lizards, which are common throughout southern California. No mammals were observed during the field survey, but rodents, feral cats, and opossums can be expected to occur on the site.

Birds observed on the site include house sparrow (*Passer domesticus*), house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), and mourning dove (*Zenaida macroura*), all considered urban-adapted species, as well as the marine-related species snowy egret (*Egretta thula*), California brown pelican (*Pelecanus occidentalis*), and gull-billed tern (*Sterna nilotica*). The sandy beach would also be expected to be used as a resting area by a number of shorebirds and seabirds, notably gulls and sandpipers. The intertidal portion of the beach likely serves as foraging habitat for gulls, sandpipers (including willets and godwits), stilts, and herons, while the adjacent waters of the channel are used by waterfowl (ducks and grebes), terns, gulls, and pelicans.

The waters of the project site support a variety of invertebrates and fish. Over 300 species of benthic (organisms that live in and on the sediments) invertebrates have been identified from Newport Bay sediments. The dominant types are annelid worms (polychaetes and oligochaetes), crustaceans (shrimp, crabs, amphipods, isopods), and mollusks (snails and clams). None is endemic (restricted) to Newport Bay; rather, they are widely distributed, occurring naturally in many California coastal bays and estuaries. Historically, the benthic infaunal community in the general vicinity of the proposed project has been shown to have low numbers of species present in high abundances (SWRCB, et al. 1994), typical of communities in stressed environmental conditions. Invertebrates observed on the project site beach (in the intertidal zone) during the site reconnaissance (**Appendix D.2**) include sand fleas (insects in the family Ceratopogonidae), beached moon jellies (*Aurelia aurita*), and sand crabs (*Emerita talpoida*). Several species of epifauna (benthic invertebrates that live on the sediment surface) were observed at the project site, including hydroids, tube anemones, tube-dwelling polychaete annelid worms, tube-dwelling amphipods, and the predatory sea slug (*Chelidonera [Nevanax] inermis*).

Over 75 species of fish are known to inhabit Newport Bay (Coastal Resources Management 2009a; see **Appendix D.2**), although only a few of those species would be expected at the project site due to the lack of habitat variety and restricted water circulation. Sampling in the open waters of the channel along the peninsula between 9<sup>th</sup> Street and 13<sup>th</sup> Street recorded approximately 19 species, the most common of which are white croaker (*Genyonemus lineatus*), shiner surf perch (*Cymatogaster*

*aggregata*), white surf perch (*Phanerodon furcatus*), slough anchovy (*Anchoa delicatissima*), deepbody anchovy (*Anchoa compressa*), black surf perch (*Embiotoca jacksoni*), queen fish (*Seriphus politus*), bat ray (*Myliobatis californica*), and mullet (*Mugil cephalus*). Other common species recorded from Newport Harbor include arrow goby (*Clevelandia ios*), California halibut (*Paralichthys californicus*), topsmelt (*Atherinops affinis*), and walleye surfperch (*Hyperprosopon argenteum*). Several of those species are likely to be present at the site, but were not observed during site surveys.

No marine reptiles (sea turtles) would be expected at the project site (**Appendix D.2**; sea turtles are considered further in the Sensitive Species section below). The only marine mammals that would be expected at the project site are sea lions (*Zalophus californicus*) and the occasional harbor seal (*Phoca vitulina*); marine mammals are considered further in the Sensitive Species section, below.

### **Sand Disposal Sites**

The oceanfront beaches and the China Cove beach would support many of the same invertebrates as the project site plus some additional amphipod and polychaete worm species (Coastal Resources Management 2009b; see **Appendix D.3**). Sediments in the subtidal areas at the nearshore disposal sites (Sites 2 and 3) support a variety of invertebrates such as sea pansies (*Renilla kolkerii*), sea pens (*Stylatula elongata*), polychaete worms, crustaceans (amphipods, isopods, cumaceans and ostracods), snails, ophiuroid brittle stars (*Amphiodia* sp.), sand dollars (*Dendraster excentricus*), sea stars (*Pisaster brevispinus*), and sand stars (*Astropecten armatus*). The LA-3 EIS (USACE & USEPA 2004) concluded that the invertebrate community at the LA-3 site is characteristic of a site continually disturbed by disposal activities. Site studies found 179 species of benthic invertebrates, dominated by small polychaetes and crustaceans but including such epibenthic organisms as anemones, sea stars, and shrimp. No commercial fisheries use the immediate vicinity of the LA-3 site.

The groins at Site 2 and the rock outcrops and seawalls at China Cove support a variety of mussels, barnacles, sponges, starfish, anemones, limpets, and other types of invertebrates (**Appendix D.3**). The rock outcrops at China Cove, being subjected to less sand scouring, support a denser and more diverse assemblage of organisms than do the groins at Site 2.

The only fish that could be characteristic of any of the sandy beaches (Newport Pier and China Cove) is the grunion (*Leuresthes tenuis*), which is considered in the Sensitive Species section, below. Common fishes of the nearshore zone (i.e., sand disposal Sites 2 and 3) include topsmelt, several species of surfperches, white croaker, California halibut, barred sand bass (*Paralabrax nebulifer*), bat ray, round sting ray (*Urolophus halleri*), sand dabs (*Citharichthys stigmaeus*), hornyhead turbot (*Pleuronichthys verticalis*), staghorn sculpin (*Leptocottus armatus*), and lizard fish (*Synodus lucioceps*). Fishes at the LA-3 site constitute two basic groups: pelagic species (fish inhabiting the water column) and demersal species (fish closely associated with the bottom) (USACE & USEPA 2004). The pelagic fish were dominated by bristlemouths, hatchetfish, and lanternfish, all of which are widely distributed in the mid-depths of deep waters. The most abundant demersal fish found at the site were deep-sea species rarely taken close to shore, including dogface witch-eels, California rattails, and two species of thornyheads.



The sandy beaches and intertidal zone would support a number of shorebirds, including gulls (*Larus* spp.), California brown pelicans (*Pelecanus occidentalis*), royal terns (*Thalasseus maximus*), elegant terns (*Thalasseus elegans*), willets (*Catoptrophorus semipalmatus*), marbled godwits (*Limosa fedoa*), and sanderlings (*Calidris alba*). Near-shore waters in the vicinity of Sites A and B provide potential foraging habitat for such common birds as the surf scoter (*Melanitta perspicillata*), western grebe (*Aechmophorus occidentalis*), and double-crested cormorant (*Phalacrocorax auritus*). Gulls and pelicans may also be seen resting on the waters just offshore of the surf break. The rock groins and rocky outcrops at the sand disposal sites, however, provide foraging and roosting habitat for birds of the rocky shore, including black oystercatchers (*Haematopus bachmani*), black turnstones (*Arenaria melanocephala*), and surfbirds (*Aphriza virgata*), and perching sites for seabirds such as pelicans, cormorants, and gulls. The LA-3 ocean disposal site is a foraging habitat for seabirds such as gulls, pelicans, cormorants, elegant terns, sooty shearwaters (*Puffinus griseus*), storm-petrels (*Oceanodroma* spp.), and red-necked phalaropes (*Phalaropus lobatus*) (USACE & USEPA 2004).

A number of sea turtles and marine mammals may visit sand disposal Sites 2 and 3 and the LA-3 ocean disposal site. In particular, sea lions and harbor seals often come into the nearshore zone, and common dolphin (*Delphinus delphis*), Pacific-white-sided dolphins (*Lagenorhynchus obliquidens*), and gray whales (*Eshrichtius robustus*) occasionally visit the nearshore zone. These species are considered further in the Sensitive Species section below. The LA-3 site would be visited by those species as well as a number of porpoise species, and, rarely, several other species of porpoises and whales (USACE & USEPA 2004).

### **Sensitive and Special-Interest Species**

#### ***Terrestrial Species On Site and at Sand Disposal Sites***

None of the six federal and/or state listed terrestrial plant species that are reported to occur in the Newport Beach area is present on the project site or sand disposal sites, nor is suitable habitat for any of these species present on those sites (**Appendix D.1, Appendix D.3**). No sensitive terrestrial animal species are present on or near the project site, nor is suitable habitat for such species present on site.

#### ***Managed Fisheries On Site and at Sand Disposal Sites***

Under the Magnuson-Stevens Fishery Act, a number of groups of commercially important fish species are managed by the federal government through fishery management plans. One element of the FMPs is the designation of Essential Fish Habitat (EFH). EFH is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (50 CFR 600.910(a)). Adverse effects of a proposed action on EFH may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of or injury to prey species and their habitat, and other ecosystem components. Habitat Areas of Particular Concern (HAPC) are described in the regulations as subsets of EFH, and are defined as being rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. Designated HAPC are not afforded any additional regulatory protection, but federally

permitted projects with potential adverse impacts to HAPC are more carefully scrutinized during the consultation process.

The proposed project is located within an area (Newport Bay) designated as EFH and HAPC for species included in the Coastal Pelagics Fisheries Management Plan (FMP) and the Pacific Groundfish FMP; rocky reefs in the ocean south of the harbor entrance are also considered HAPC for those two managed fisheries, but the LA-3 site is not HAPC for any managed fishery. Four coastal pelagic species, the northern anchovy, Pacific sardine, jack mackerel, and Pacific mackerel, potentially occur in the waters offshore of Newport Beach and may occur inside the bay. Six groundfish species also potentially occur within the general project area, including California scorpionfish (*Scorpaena guttata*), vermillion rockfish (*Sebastes miniatus*), calico rockfish (*Sebastes dallii*), California skate (*Raja inornata*), spiny dogfish shark (*Squalus acanthias*), and leopard shark (*Triakis semifasciata*). Of these species, only the northern anchovy is very abundant, although less so within Newport Bay. Northern anchovy supports a commercial-bait fishing operation based in the Newport Harbor entrance channel and is an important food item for many fish and seabirds. Although the other Coastal Pelagic and Pacific Groundfish FMP species are known from the project site and sand disposal sites, available data indicate that their presence is likely sporadic and their numbers in the project region would be extremely low (**Appendices D.2 and D.3**).

#### **Endangered, Threatened, and Special Status Species; On-Site and at Sand Disposal Sites**

A number of sensitive species of marine plants and animals were evaluated for their potential to occur in the project area. Of the plants, giant kelp (*Macrocystis pyrifera*) would have no potential to occur near the project site (it is not found in shallow bays) nor at the sand disposal sites (the nearshore sites are too shallow and turbid, LA-3 is too deep). Of the animals, black abalone (*Haliotis cracherodii*), light-footed clapper rail (*Rallus longirostris levipes*), coastal California gnatcatcher (*Poliophtila californicus californicus*), and tidewater goby (*Eucyclogobius newberryi*) were determined to have no potential to occur at either the project site or the sand disposal sites (**Appendices D.2 and D.3**). The remaining sensitive species are discussed below.

**Eelgrass (*Zostera marina*).** Eelgrass is a marine angiosperm that forms meadows in mud-and-sand substrates of protected shallow-water bays and channels. Although it is not listed as threatened, rare, or endangered, it is considered sensitive by resource agencies because its value as a nursery habitat and protective cover make it an important biological habitat for invertebrates and fish.

In Newport Bay, eelgrass grows in lower intertidal and shallow (generally up to -8 ft MLLW) subtidal soft-bottom areas. The extent of the beds varies from year to year with varying environmental conditions. Recent surveys in Newport Harbor and Upper Newport Bay (summarized in **Appendix D.2**, and Weston Solutions et al. 2009) indicate extensive beds of eelgrass in the eastern and central portions of Newport Bay. There are no natural eelgrass beds along the shoreline between 15<sup>th</sup> Street and 19<sup>th</sup> Street (the project site), but eelgrass does occur in the intertidal and subtidal habitats of China Cove, between 0.0 and -12 feet MLLW. It lies approximately 100 ft from the edge of the proposed sand disposal site. The channel adjacent to the project site was considered to have potential as eelgrass

habitat until an unsuccessful transplantation project in late summer 2004 as part of a USACE Lower Newport Harbor Eelgrass Restoration Project undertaken in coordination with the County of Orange and the City of Newport Beach.

**Surfgrass** (*Phyllospadix torreyi*). Surfgrass is a sensitive marine resource that occurs in rocky shoreline and rocky subtidal habitats from 0 ft MLLW to approximately -20 feet MLLW. Its sensitivity is related to its use by invertebrates and fishes as nursery habitat and its susceptibility to long-term damage because it is a very slow-growing species. Surfgrass is an HAPC for the Pacific Groundfish FMP, primarily because of its use by juvenile olive rockfish (*Sebastes serranoides*) as nursery habitat. Some surfgrass may be present on the individual groins in sand disposal Site 2, but the species was not observed within the perimeter of proposed near-shore sand disposal activities (**Appendix D.3**).

**Pismo clam** (*Tivela stultorum*). This species is a thick, heavy-shelled clam that is sought after for its flavor by recreational clam diggers. It usually lives in the intertidal zone on flat beaches of the open coast, but they have been found out to depths of 80 feet and are sometimes encountered in the entrance channels to sloughs, bays and estuaries. It has been periodically abundant in Orange County between Seal Beach and Newport Beach, and although no recent surveys have been conducted in Orange County, recent data and reports indicate that the clam population is relatively stable and that significant numbers of Pismo clams continue to be harvested from some of the beaches in southern California. Based upon this information, it can be assumed that Pismo clams may be present in the intertidal and shallow subtidal habitat at the project's sand disposal sites, but their abundance within the area is not known.

**California grunion** (*Leuresthes tenuis*). The grunion is a member of the silversides family, Atherinidae, along with the jacksmelt and topsmelt. This species does not have a state or federal listing, but it is a sensitive species due to its use of southern California beaches, including the ocean beaches of Newport Beach, for spawning. They normally occur from Point Conception, California, to Point Abreojos, Baja California, inhabiting the nearshore waters from the surf to a depth of 60 feet. Grunion are not expected to occur on the project site because they favor more exposed beaches with significant wave action, but would be expected to occur on the ocean beaches that could be used as sand disposal sites.

**California halibut** (*Paralichthys californicus*). Although the California halibut does not have formal special-species status, it is considered a sensitive species by resource agencies because of its commercial value, combined with a continued region-wide reduction of its nursery habitat in bays and wetlands. California halibut spawn at sea, but the larvae migrate into shallow coastal waters, including Newport Bay, which serve as nursery grounds. After nine months in their nursery areas, juveniles move out into the coastal ocean. California halibut are distributed throughout the waters of Newport Harbor and Upper Newport Bay, primarily as juveniles, although larger individuals are caught near the ocean entrance and in offshore waters. This species has a high potential to occur in

the shallow waters of the project site because of the nature of the sand shoreline and the relatively wide shelf of sandy silt sediments.

**Garibaldi** (*Hypsypops rubicundus*). Garibaldi, the largest of the damselfish family (Pomacentridae), are found associated with hard substrata (rocks, structures) in shallow waters off the Southern California coast and Mexico. In 1995 the California Legislature designated the garibaldi as the Official State Marine Fish and banned any further commercial or recreational take. Garibaldi populations have rebounded from the local effects of commercial take and are in good condition throughout their range in southern California. Garibaldi occur in the Newport Harbor Entrance Channel and nearshore reefs. They may utilize the rock groins in the project area, but their potential to be present in the project area is low.

**Marine reptiles.** Marine reptiles are represented in California by sea turtles. Sea turtles do not utilize the local marine waters as a permanent breeding or foraging habitat. However, the green turtle (*Chelonia mydas*) and hawksbill turtle (*Eretmochelys imbricata*) occasionally visit the nearshore environment of Orange County. Green sea turtles have been reported in the San Gabriel River, attracted to the warm discharge waters of the nearby power-generating facilities (Vivian Cook, Marine Bureau; Allen Powder, Long Beach Lifeguards pers. comm. with R. Ware, CRM, 27 July 2007). Their occurrence within Newport Bay, located 20 miles east-southeast of Long Beach, is expected to be rare, although green sea turtles may utilize the eelgrass beds in Newport Bay as one source of nutrition.

**California least tern** (*Sterna antillarum browni*). The state- and federally listed California least tern is a spring-and-summer resident in southern California during the breeding and nesting season. The California least tern does not breed or nest near the project site, but birds from nesting colonies in the region do forage in Newport Bay and nearshore coastal waters during the March through September breeding season. The nearest California least tern nesting sites are located approximately 2.5 miles west (upcoast) at the mouth of the Santa Ana River and 4.2 miles northeast in Upper Newport Bay near the Jamboree Bridge. There is a moderate potential for individuals to forage in the West Newport Channel adjacent to the project site during the nesting season.

**Brown pelican** (*Pelecanus occidentalis*). The state- and federally listed endangered brown pelican is found in Newport Bay year round but does not breed locally. Currently, the brown pelican is proposed for delisting due to a population resurgence along the Southern California coastline. Brown pelicans utilize Newport Harbor waters for foraging on baitfish and use the shoreline as resting habitat, but nesting occurs exclusively on offshore islands.

**Western snowy plover** (*Charadrius alexandrinus nivosus*). This state- and federally listed endangered small shorebird nests on coastal beaches from southern Washington to southern Baja California and winters along the coast of California and Baja California (Port of Long Beach 2009). Critical habitat designated for this species by the US Fish and Wildlife Service (2005) in Orange County includes the Bolsa Chica reserve and adjacent beaches, and the mouth of the Santa Ana River

(Coastal Resources Management, Inc. and Chambers Group, 2003); the beaches in Newport Beach are not critical snowy plover habitat. Until recently, no nesting by the species has been observed on beaches in the area, which are likely too heavily used to be attractive to the birds, but in 2009 one nest on the beach near the eastern end of the Balboa Peninsula produced three young (**Appendix D.2**). Snowy plover have consistently roosted on that same beach during the winter, but they are considered to have a low potential for occurring on the project site or at the sand disposal locations (**Appendix D.2**).

**Black skimmer** (*Rhynchops niger*). This California Species of Special Concern is widespread along the Pacific Coast, nesting on coastal beaches and sand flats along the coast of California. A large colony nests in the Bolsa Chica Reserve, and individuals can be expected to forage in the calm, protected waters of Newport Bay, including adjacent to the project site.

**Marine Mammals.** A number of marine mammals have been observed in nearshore Southern California waters, including the gray whale (*Eshrichtius robustus*), which migrates from the Bering Sea to Mexico and back each year, two species of dolphin (Pacific white-sided dolphin, *Lagenorhynchus obliquidens*, and common dolphin, *Delphinus delphis*), and the harbor seal (*Phoca vitulina*). The waters of Newport Bay are too shallow for whales to enter and are likely too shallow to attract dolphins. Sea lions are common in Newport Bay (see below) but harbor seals, although common offshore, are only occasional visitors to the bay. The presence of dolphins, whales, or other cetaceans would be extremely rare in the western section of Newport Harbor, but dolphins, sea lions, and harbor seals would be expected to occur in the vicinity of the ocean beaches used for sand disposal. As mentioned above, several species of whales that frequent deep, offshore waters, including blue whale, fin whale, sperm whale, and smaller whales such as pilot and minke whales, are likely to pass through the LA-3 site occasionally.

**California sea lions** (*Zalophus californicus*). California sea lions belong to the group of marine mammals known as pinnipeds, which includes seals, sea lions, and walruses. In recent years, California sea lions have taken up seasonal residence in the harbor. While initially concentrated in the southeast section of the harbor between the Pavilion and the entrance channel, they have extended their seasonal distribution to the northwest (West Newport) waters and Mooring Areas J and H, seaward of the Marina Park site. Their abundance in the bay is the result of abundant food resources, and they are able to utilize the low stern platforms of boats in the harbor as haulouts, which has damaged and even sunk vessels. Their distribution in the West Newport waters may also be related to observed increases in the population of mullet that have been particularly abundant in this section of the harbor in 2008. Countermeasures (ordinances and public education brochures regarding the direct and indirect feeding of sea lions) have been implemented by the City to reduce the tendency to use boats as haulouts. California sea lions have a high potential to occur both in the project site, given the presence of the American Legion marina and nearby moored boats, and at the sand disposal sites.

### ***Invasive Species On Site and at Sand Disposal Sites***

Although a number of non-native species, ranging from algae to fish, have been documented in Southern California marine waters, most appear to be fairly innocuous in terms of their effects on local ecosystems (e.g., MEC 2002). One species, however, is considered by the resource agencies to be of particular concern: the invasive green alga *Caulerpa taxifolia*, which is the focus of an interagency eradication and control effort. Another species of concern, *Undaria pinnatifida*, has also been reported from southern California, but not from Newport Bay or the coast of Newport Beach. *Caulerpa taxifolia* was found in shallow, enclosed areas of Huntington Harbor and Agua Hedionda Lagoon in 2001. This tropical marine alga, which was introduced to natural systems through the aquarium trade, can be extremely harmful to marine ecosystems because it invades, out-competes, and eliminates native algae, seagrasses, kelp forests, and reef systems by forming a dense blanket of growth on mud, sand, or rock surfaces. It can grow in shallow coastal lagoons as well as in deeper waters and has a wide range of environmental tolerance.

Although regional efforts are believed to have eradicated this species over the last two years, the resource agencies remain vigilant and have instituted a number of procedures for minimizing the chances that *Caulerpa* will re-establish itself. *Caulerpa* has not been found within Newport Bay despite intensive underwater searches, and Newport Bay has been designated as a *Caulerpa*-free system (National Marine Fisheries Service 2001 revised 2003). This species was not observed at the project site in October 2003, March 2004, October 2007, or August 2008 (**Appendix D.2**) and would not be expected at any of the sand disposal sites due to the lack of suitable habitat.

### **5.3.4 - Thresholds of Significance**

The thresholds of significance for evaluating the impacts of the proposed project on biological resources are taken from the CEQA Guidelines' Appendix G Environmental Checklist and amended for project-specific conditions. Would the project:

- a.) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- b.) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- c.) Have a substantial adverse effect on intertidal habitats through direct removal, filling, hydrological interruption, or other means?
- d.) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of wildlife nursery sites?

- e.) Conflict with any local policies or ordinances protecting biological resources, such as a tree-preservation policy or ordinance?
- f.) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

### 5.3.5 - Project Impact Analysis and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

#### Listed Species

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**5.3-A: The project could have adverse effects, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in policies or regulations.**

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#### *Project-Specific Analysis (Project Site and Sand Disposal Sites)*

**Terrestrial Species.** No federally or state-listed terrestrial species are present on the site, and no suitable habitat for any federally or state-listed terrestrial species is present on the site. Therefore, no impacts are expected to occur to any sensitive terrestrial species under any of the three phases of construction or operation.

**Marine Species.** As described in Section 5.3.3, a number of species protected by federal or state regulations are present in either or both of the project site and the sand disposal sites. Construction and operation of Phases 1 and 2 would have no impact on any of the protected species described in Section 5.3.3, but construction of Phase 3 could affect protected species.

No eelgrass (*Zostera marina*) is present in the vicinity of the project site or at any of the sand disposal sites except China Cove. Sand disposal at China Cove would take place on the upland sandy beach, not in the subtidal and intertidal areas of China Cove. Accordingly, project construction would have no impact on eelgrass. Project operation would have no effect on existing stands of eelgrass. If a future eelgrass transplantation project should occur in the channel adjacent to the proposed marina, however, degraded water quality could affect its success. This potential impact would be less than significant because the water quality improvement measures to be installed as part of the Marina Park project (see Section 5.7) would prevent significant degradation of local water quality. Sand placement and disposal would have no impact on surfgrass (*Phyllospadix torreyi*) because placement would not affect the rocky substrata on which surfgrass lives.

Placement of dredged material in the nearshore zone at Sites A and B could adversely affect any Pismo clams (*Tivela stultorum*) that might be present in the placement area by burying individuals and increasing turbidity in the water column. The impact is considered to be less than significant because of the limited extent and duration of the placement activity.

Placement of dredged material on or immediately offshore of ocean beaches (sites 2 and 3, could interfere with grunion (*Leuresthes tenuis*) spawning, which typically is at its peak April through June in southern California. Beach placement would also destroy benthic organisms in the surf zone that serve as food for grunion, although the effect on the food resource would be small because of the limited extent of material placement and the impact would be less than significant. The placement of dredged material would have a significant impact on grunion if it took place during the peak spawning season.

Construction of the marina in Phase 3 could affect California halibut (*Paralichthys californicus*) by causing turbidity in nursery habitat adjacent to the project site and at the nearshore sand placement sites. The pollution control measures described under Managed Species, above, would reduce the impacts to less than significant. Garibaldi (*Hypsypops rubicundus*) near the China Cove site would not be affected by turbidity associated with sand placement because placement would be restricted to the upland sandy beach.

On-site construction and operation activities of the proposed project would have no impact on marine reptiles (sea turtles) due to their infrequent occurrence in Newport Harbor. Disposal vessel traffic could encounter turtles on the way to the nearshore disposal sites and LA-3. However, because very few vessel trips would be involved (likely no more than 20 round trips) and turtles are infrequent visitors to the area, it is unlikely that any take of turtles would occur. The LA-3 EIS (USACE & USEPA 2004) did not identify an impact on turtles as a result of disposal activities at LA-3. Accordingly, impacts of project construction on marine reptiles would be less than significant.

Brown pelicans (*Pelecanus occidentalis*), California least terns (*Sterna antillarum browni*), and black skimmers (*Rhynchops niger*) may occasionally forage in Newport Harbor waters in the general vicinity of the project site and, for pelicans and terns, at the nearshore disposal sites. Turbidity plumes from the dredging and sand placement operations could potentially affect their foraging behavior by limiting their ability to see their prey, and the construction activity itself could cause avoidance of the area, both of which could result in locally significant impacts to those endangered species. Noise and equipment operation could cause birds to avoid using the beach as a resting area. No direct mortality of any of these species would be expected, however.

The project would employ a variety of BMPs to reduce and contain turbidity (see above), and the area of construction would be small enough to limit the extent of any turbidity plume that did develop. Avoidance of the construction area by terns and pelicans would only deny them access to a relatively small potential foraging area adjacent to the existing beach and a small area off the ocean beaches. Furthermore, brown pelicans are habituated to human activities, as their abundance in crowded harbor areas attests, and thus are not likely to be hindered by the presence of construction. Construction at the project site and the disposal of sand at the ocean beach sites would not affect snowy plovers (*Charadrius alexandrinus nivosus*) because that species does not nest or roost at any of the sites. None of the endangered bird species uses the LA-3 site. Project operation under all three phases



would have no effect on protected bird species. Accordingly, construction and operation of the proposed project would have a less than significant impact on listed bird species.

California sea lions (*Zalophus californicus*) have a potential to be present during the construction period. Sea lions could be affected by the noise of the dredging operation, by pile driving, and by contact with the dredging and disposal equipment during construction. Dredging would not affect animals that may haul out on boats moored in the Lido Channel because those boats would be at least 250 feet from the dredging operation, too far away to be affected by noise or to have contact with equipment. Breeding would not be affected because sea lions do not breed in the Newport Harbor. Other marine mammals are not expected to come close enough to the marina construction site to be affected.

According to the National Marine Fisheries Service (see response to Comment A6-11 in Section 8), the measured sound exposure levels of a clamshell dredge may range between 75-88 dBA (re 20  $\mu$ Pa; this terminology refers to a technical measure of underwater sound) at 50 feet. Animals have been observed flushing from haul out sites at a sound exposure level of less than 100dBA, and it is possible that marine mammals may modify their behavior as a result of the noise produced by the dredging operation. The duration of such noise would be short, less than two months; furthermore, most of the dredging operation would take place within the confines of the marina basin, which would limit the noise levels in open water and the likelihood that sea lions would be near the operation. The dredging necessary to deepen the marina approach, however, would take place in the open channel where sea lions could be present. Based on Port of Los Angeles responses to comments on the Port of Los Angeles Channel Deepening Project EIR/EIS, underwater noise from the clamshell dredging in Los Angeles Harbor would be 150-162 dB (re 1  $\mu$ Pa), which is below the designated level A harassment threshold of 190 dBrms (re 1  $\mu$ Pa) for pinnipeds (see **Appendix D.2** of this EIR). Accordingly, clamshell dredging effects on sea lions (and other marine mammals near the project site) would be less than significant.

Pile driving could affect the hearing of seal lions swimming nearby, if it is too loud, and would likely cause them temporarily to move farther away from those activities, such as to other areas of the bay. The effects of pile driving on California sea lions has been evaluated in detail by NMFS (2003) and Port of Los Angeles (POLA 2009), and the issue is assessed in more detail in **Appendix D.2**. According to POLA (2009), pile driving produces noise levels of 177 to 220 dB (re 1  $\mu$ Pa [a measure of underwater sound pressure]) at a distance of 33 ft from the source, depending on the material and size of the piles (Hastings and Popper 2005). The NMFS (2003) cites an underwater sound level of 180 dB (re 1  $\mu$ Pa) as the level A harassment level, i.e., the level that could produce a potential effect on nearby marine mammals. Observations during pile driving for the San Francisco-Oakland Bay Bridge East Span seismic safety project showed that sea lions swam rapidly out of the area, avoiding areas where sound pressure waves could affect them.

The noise levels cited in POLA (2009) are likely higher than would be produced by the Marina Park pile driving because the piles and equipment to be used in the project are much smaller than the

material used in the Los Angeles project. Accordingly, it is considered unlikely that noise levels would exceed the Level A harassment threshold. Furthermore, much of the pile driving would not take place in open water, so that produced sound levels would be lower due to being muffled by sediments. The animals would likely adapt to the noise after some time, and remain in the general area of marina construction. Nevertheless, one possible source of impact would be the startle effect when pile driving starts up. If sea lions are too close to the operation they could be injured by the sudden loud noise. This effect is considered unlikely due to the few sea lions likely to be in the project area and the short duration of pile driving. In addition, pile driving activities would be a minimum of 250 feet (76 meters) from the nearest vessels (in Mooring Area H anchorage) that sea lions might haul out on. Nevertheless, although the impacts of pile driving on marine mammals are considered to be less than significant, a mitigation measure (MM 5.3-A.2) has been developed that would further minimize the likelihood of an impact.

To date, there are no records of marine mammals being harmed by the Upper Newport Bay dredging operation or the transport of dredge material by barges and tugs through Newport Harbor to disposal sites. In all likelihood, individuals would avoid the dredging operation, and although individuals may be curious, there is a low potential for harm to an individual or the population within the vicinity of Newport Bay, including the sand disposal sites. Accordingly, contact with dredging and disposal equipment is expected to have less-than-significant impacts on individuals that may be in the vicinity of those operations. Nevertheless, the City has developed a mitigation measure requiring contractors to report any collisions between project vessels and marine mammals.

Although sea lions may occasionally swim into the marina, they are not expected to haul out if measures are taken to deter their presence. The City has committed to work with NMFS to ensure that the project would include design features for low-lying docks on the water that would non-lethally deter pinnipeds, specifically sea lions, from hauling out. In addition, the City has an ordinance and an in-place program for all commercial and private vessels designed to deter marine mammals from hauling out on vessels. Accordingly, operational impacts on marine mammals are expected to be less than significant.

### ***Cumulative***

Construction of the proposed project could affect natural resources that are important to managed and sensitive species in Newport Bay. These potential effects could result from turbidity impacts and could contribute to significant cumulative impacts to sensitive species. The mitigation measures developed to minimize impacts on water quality (Section 5.7) would lessen the project's cumulative effects on sensitive fish species. Construction noise would be limited and short term, and would not represent a cumulative impact.

### ***Mitigation Measures***

Implementation of Mitigation Measures MM 5.7-A.1 and MM 5.7-A.2 would minimize the water quality effects that could adversely affect sensitive species. In addition, the following mitigation

measures would reduce the potential impact on grunion spawning and minimize the effects of marina construction on marine mammals.

**Project Specific:**

**MM 5.3-A.1** During Phase 3 construction, the City of Newport Beach shall ensure that placement of dredge material on or adjacent to ocean beaches does not occur between March 31 and June 30.

This measure would ensure that the effects of dredge material placement would have an less than significant effect on grunion spawning by avoiding the peak spawning season, such that only a few individual fish, if any, would be affected.

**MM 5.3-A.2** During Phase 3 project construction, the City of Newport Beach shall require that the use of sound abatement techniques be used to reduce noise and vibrations from pile-driving activities. At the initiation of each pile-driving event and after breaks of more than 15 minutes, the pile driving shall also employ a “soft-start” in which the hammer is operated at less than full capacity (i.e., approximately 40 to 60 percent energy levels) with no less than a 1-minute interval between each strike for a 5-minute period.

A biological monitor shall be on-site to monitor effects on marine mammals, including flushing responses and symptoms of stress or damage. The biological monitor shall also note (surface scan only) whether marine mammals are present within 100 meters (333 ft) of the pile driving and, if any are observed, temporarily halt pile driving until the observed mammals move beyond this distance.

The operation of the hammer at 40 to 60 percent energy level during the soft start of pile driving is expected to result in similar levels of noise reduction (40 to 60 percent) underwater. Sea lions would probably swim away from the area once pile driving has started, so that when full energy levels were employed the animals would be far enough away to avoid sustaining damage. The soft-start approach to pile driving would prevent any “take” of marine mammals.

**MM 5.3-A.3** During Phase 3 construction, in the event of a construction vessel collision with a marine mammal, the City of Newport Beach shall immediately contact Mr. Joe Cordero, National Marine Fisheries Service Southwest Regional Office’s Stranding Coordinator 562 980-4017) and will submit a report to the NMFS Southwest Regional Office.

**Cumulative**

Implementation of Mitigation Measures MM 5.7-A.1, MM 5.7-A.2, MM 5.3-A.1, MM 5.3-A.2, and MM 5.3-A.3 would minimize identified impacts.

**Level of Significance After Mitigation***Project-specific*

Less than significant.

*Cumulative*

Less than significant

**Sensitive Natural Communities**

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**5.3-B: The project could adversely affect sensitive natural communities identified in local or regional plans, policies, and regulations.**

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***Project-Specific Analysis (Project Site and Sand Disposal Sites)***

The proposed project would not affect local resources or areas identified as sensitive habitat areas or natural communities, including the City-designated Environmental Study Area 13, near the Newport Harbor entrance and the Newport Submarine Canyon. The former is on the other side of the entrance channel from the China Cove sand disposal site, which would be too far for the upland disposal activity to have any adverse effect on kelp. The latter is just offshore of the nearshore sand disposal sites (Sites A and B), and could receive sand that moves offshore instead of remaining in the nearshore placement area. As the volume of sand (no more than 40,000 cubic yards) would be insignificant in relation to the amount of sand that naturally moves along the coast and down the canyon, the impact would be less than significant.

**Managed Fisheries.** Species in the Pacific Groundfish and Coastal Pelagics (specifically, northern anchovy) fisheries adjacent to the project site could potentially be affected by project construction and operation both directly and by adverse effects on their habitat. Construction activities in all three phases could potentially cause erosion/runoff of exposed soils by water and wind that could enter the waters of Newport Bay. Other pollutants generated during demolition and marina construction could include heavy metals, toxic chemicals, wastes and debris, fuel, lubricants, and other toxins related to construction equipment and its maintenance. These pollutants could degrade water quality and have adverse impacts on marine life, including reduced viability, tissue contamination, and chronic and acute toxicity. Soil runoff could result in turbidity and siltation in the bay, which could adversely affect the planktonic and benthic organisms in the bay that provide food for managed fish species, as well as eelgrass that constitutes EFH. Releases of other pollutants could degrade water quality and cause toxicity to managed fish species and their prey. Dredging during Phase 3 in the intertidal and subtidal sediments would destroy benthic invertebrates and bottom-dwelling fish such as gobies that serve as prey for managed species, and could create turbidity that would adversely affect managed species and EFH.

These effects would be limited, however. The amounts of sediment and dust that would escape from the construction site and from the dredging operation would be limited by the best management practices (BMPs) imposed by the construction permit that the City would be required to obtain (see Section 5.7 for details). There would be no long-term, significant impacts because the effect would

be small in comparison to the normal siltation in the bay and relative to the size of the bay as a whole. Similarly, spills and other releases of potentially toxic substances would be controlled by the construction BMPs, which would include provisions for emergency response and cleanup. In addition, the limited scale of the construction project would limit the scale of the potential impact. Losses of individuals due to dredging would be a short-term impact, as other individuals would migrate into the dredged area; based on experience from other areas of Newport Bay (see **Appendix D.2**), colonization of the newly exposed sediments would be accomplished within one year. The dredging and other in-water construction activities would employ BMPs that would include the use of silt curtains, curtailing dredge operations as necessary, limiting overflow of dredged material from the disposal scows, and continuous site monitoring. Furthermore, no eelgrass is present near the project site, and mitigation measures developed to minimize impacts on water quality (Section 5.7) would further lessen the project's effects on managed species. Finally, the number of organisms that would be affected would be small: none of the Pacific Groundfish species would occur near the project site except as stray individuals, and the only member of the Coastal Pelagics likely to be present in substantial numbers is northern anchovy, a widespread and abundant species. The effects of erosion, dredging-related turbidity, and spills on managed fish species and EFH at the project site would, therefore, be less than significant.

Pile driving in Phase 3 construction would create noise and turbidity, but the effects would be localized and of relatively short duration. Most of the pile driving, i.e., that involving the sheet piling, would be done before the basin was open to the Bay; only the 60 guide piles would be installed when the basin was full of water, which would take no more than one month. Fish have been shown to be adversely affected by the high noise levels that pile driving can produce, and at very high sound levels can be injured or killed (e.g., Green n.d.; NMFS 2003). However, fish would be expected to avoid the area during pile driving, and the newly-created basin would not be expected to attract fish until construction was completed. Although the impacts would be less than significant, for the reasons presented above, mitigation measures related to water quality, beach impacts, and pile driving noise (MM 5.3-A.1, 5.3-A.2, 5.7-A.1 and 5.7-A.2) would be employed to reduce impacts further. Accordingly, impacts of pile driving on managed fish species would be less than significant.

Of the 1.81 acres of on-site intertidal habitat, the loss of 0.66 acres of sandy intertidal area would represent a loss of EFH, but that loss would be offset by the net gain of 0.9 acres of shallow-water habitat in the form of the marina basin. The added water area would support benthic invertebrates and forage fish that would serve as a food resource for managed species, particularly the Pacific Groundfish species. In addition, construction of the proposed marina would result in the depth modification of shallow-water subtidal habitat in the channel adjacent to the project site in order to provide adequate approach and berth depths. This impact to shallow-water habitat is considered less than significant because the depth change would be small (less than six feet) and the benthic community would recolonize the sediments. Finally, the proposed marina would be enclosed by a bulkhead of cement sheet piling and would include up to 60 guide pilings, which together would create a substantial amount of hard-surface habitat that would support marine algae and invertebrates

that would provide an additional food resource for managed fish species. Accordingly, the impacts of construction on EFH would be less than significant.

Operation of Phases 1 and 2 would have no impacts on managed species or EFH. Long-term water quality within the proposed marina would suffer from poor flushing rates, which would be below EPA guidelines (**Appendix H.2**). Inadequate tidal flushing in the marina basin would result in lowered dissolved oxygen levels, higher water temperatures, lower water transparency, higher plant nutrient concentrations, and increased sedimentation. These conditions could limit the colonization of marina habitats by plants, invertebrates, and fish, and limit long-term productivity of the marina's biota. The potential influence of degraded water quality in the marina on adjacent harbor water quality could have an indirect impact on managed fish species living in Newport Bay outside the marina, especially in view of already degraded water quality in the adjacent Lido Channel (**Appendix H.2**). As the marina would be part of the Newport Bay system that is designated EFH for Pacific Groundfish and Coastal Pelagics, there would be an adverse effect on EFH.

In recognition of this potential impact, Phase 3 of the project includes the installation of circulation-enhancing devices in the marina (see Section 5.7 for a fuller discussion of the devices). These devices would improve water quality by raising dissolved oxygen concentrations and improving flushing times within the marina basin. Both the small size of the basin (1.7 ac) relative to Newport Bay and the installation of circulation enhancement devices would substantially reduce the magnitude of the impact. In the long term, the creation of an additional 0.9 acre of shallow water (the marina basin), would be beneficial to managed species in the Coastal Pelagics and Pacific Groundfish FMPs by increasing the amount of EFH available to them. Accordingly, direct impacts on managed species from operation of the marina would be less than significant.

**Invasive Species.** EFH could be affected by the release and spread of the invasive alga *Caulerpa taxifolia* that, if it were to become established, could adversely affect the native benthic communities on which many managed species rely. Although *Caulerpa* has not been detected in Newport Harbor it is, as described in Section 5.3.3, present in other southern California embayments. The interagency Southern California *Caulerpa* Action Team has developed protocols for in-water construction projects that project proponents are required to implement as conditions of their USACE permits. The City would conduct the required underwater surveys for the presence of *Caulerpa* prior to the commencement of dredging; if *Caulerpa* were detected, dredging would be prohibited until eradication efforts had been completed. These procedures would minimize the chance that project dredging would facilitate the spread of *Caulerpa*. Given these procedures and the fact that *Caulerpa* is not known from Newport Harbor, the project's impact on the potential spread of *Caulerpa* is considered less than significant.

### **Cumulative**

The proposed project would not contribute to cumulative impacts on designated sensitive natural communities. Construction of the marina portion of the proposed project in Phase 3 would contribute to the cumulative loss of sandy intertidal habitat. This contribution to the cumulative impact on sandy

intertidal habitat is considered less than significant, however, as it is very small in relation to the total amount of such habitat available in the immediate vicinity of the project site and in Newport Beach as a whole.

Construction of Phase 3 of the proposed project could affect natural resources that are important to managed species and their habitats in Newport Bay. These potential effects could result from turbidity, releases of pollutants, noise, and habitat destruction. Mitigation measures developed to minimize impacts on water quality (Section 5.7) and biological resources (see threshold 5.3-A) would be employed in order to lessen project construction's cumulative effects on the EFH of managed species.

Operation of the proposed marina could contribute to cumulative water quality impacts in the project area, given the identified water quality and sediment issues in the nearby Rhine Channel and the channel adjacent to the project site. Degradation of water quality would represent an adverse impact on EFH. The project's water quality improvement measures and mitigation measures related to water quality (see Section 5.7) would minimize those effects, and result in less than cumulatively considerable impacts.

### ***Mitigation Measures***

#### ***Project Specific***

No mitigation is required. Implementation of Mitigation Measures MM 5.7-A.1, MM 5.7-A.2, MM 5.3-A.1 and MM 5.3-A.2 would lessen impacts.

#### ***Cumulative***

No mitigation is required. Implementation of Mitigation Measures MM 5.7-A.1, MM 5.7-A.2, MM 5.7-A.1 and MM 5.3-A.2 would lessen impacts.

### ***Level of Significance After Mitigation***

Less than significant.

#### ***Cumulative***

Less than significant.

### **Intertidal and Shallow Water Habitat**

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**5.3-C: The project could have an adverse effect on intertidal habitat through direct removal, filling, hydrological interruption, or other means.**

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### ***Project-Specific Analysis***

No jurisdictional wetlands, as defined by the USACE or CCC guidance are present on the site (see above and **Appendix D.4**). Accordingly, the proposed project would have no impact on protected wetlands. However, there are 1.81 acres of sandy intertidal habitat present on the site. The construction of the proposed marina in Phase 3 would remove 0.66 acre of intertidal habitat.

However, the new marina bulkheads, groin walls, dock pilings, and dock floats would provide new intertidal and subtidal hard substrate that would be colonized by marine algae as well as invertebrates (mussels, crabs, and worms). The increased food-base provided by algae and invertebrates living on the hard substrate would attract perch and other species of fish. The increase in surface area of both open water habitat and soft-bottom benthic habitat created by the marina project would provide additional habitat for water-column fish (i.e., topsmelt and perch), bottom-associated fishes (i.e., flatfish and gobies), and soft-bottom invertebrate (worms and clams). (Also, as noted above the project would create 0.9 acres of open water/soft-bottom habitat.) The loss of 0.66 acres of intertidal habitat and associated benthic food resources for foraging fish and shorebirds would constitute a potentially significant, but mitigable, impact. That loss would be mitigated as determined by the City of Newport Beach during the project permitting phase (mitigation measure MM 5.3-C.1). Deepening of the existing subtidal area would affect 0.1 ac of on-site shallow water and 0.72 acre of offsite shallow water. That area would remain shallow-water habitat, therefore, no loss of shallow-water habitat would occur, and the impact on marine habitat would be less than significant.

### ***Cumulative***

The proposed project would contribute to the loss or degradation of sandy intertidal habitat. That loss could represent a cumulatively considerable impact.

### ***Mitigation Measures***

#### ***Project Specific***

The following mitigation measure would reduce the project's impact on sandy intertidal habitat to less than significant.

**MM 5.3-C.1** The City of Newport Beach shall mitigate the loss of 0.66 acres of sandy intertidal habitat at an acceptable location within Newport Bay, or at another southern California embayment, or by means of an in-lieu fee agreement. Mitigation shall be based upon a ratio determined by the City of Newport Beach. An in-lieu fee agreement option for contributing to a permitted or nearly-permitted mitigation project option will also be simultaneously pursued.

A conceptual and final intertidal habitat mitigation plan will be developed that further refines habitat losses, identifies mitigation goals, mitigation success criteria, costs, location, mitigation requirements, mitigation methods, monitoring, and mitigation success criteria. The mitigation plan will be included in the USACE and the California Coastal Commission (CCC) permit conditions.

In accordance with Public Resources Code 21081.6, a mitigation monitoring plan must be developed to monitor the success of the habitat replacement.



*Cumulative*

Implementation of mitigation measure MM5.3-C.1 is required in order to reduce the project's contribution to cumulative impacts.

**Level of Significance After Mitigation***Project-Specific*

Less than significant.

*Cumulative*

Less than significant.

**Wildlife Migration Corridors and Nursery Sites**

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**5.3-D: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of wildlife nursery sites.**

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**Project-Specific Analysis (Project Site and Sand Disposal Sites)**

No designated migration corridors are on or near the project site. No native terrestrial wildlife species are known to use the site, nor would any be expected to in view of its highly developed nature.

Some marine wildlife species are likely to move through the waters adjacent to the project site and use those waters as nursery habitat, and some species may move through the nearshore areas at sand disposal sites 2 and 3. Turbidity from dredging and dredged material disposal could interfere with wildlife movements. These effects would be temporary, however, and would have a less than significant impact on wildlife movements. The LA-3 ocean disposal site may experience migrations by a number of fish and mammal species, including gray whales. The site designation EIS, however, concluded that the impacts of disposal operations on wildlife migration movements would be less than significant (USACE and EPA 2004).

The site is likely to serve as nursery for the California halibut, considered by the regional wildlife agencies as a sensitive fish species. The project is not known to support a large population of California halibut, although some may be present. The potential impacts of the proposed project, in particular marina construction, on halibut are considered under 5.3-A. That analysis concluded that the project would have less than significant impacts on halibut and their habitat, but imposed a mitigation measure in order to lessen the noise impacts that were identified and invoked the water quality mitigation measures imposed in Section 5.7.

**Cumulative**

The proposed project would not contribute to potential cumulative impacts to the California halibut nursery sites.

**Mitigation Measures***Project-Specific*

No mitigation measures are required. Implementation of Mitigation Measures MM 5.7-A.1, MM 5.7-A.2, and MM 5.3-A.2 would minimize impacts.

*Cumulative*

No mitigation measures are required.

**Level of Significant after Mitigation***Project Specific*

Less than significant

*Cumulative*

No impact.

**Local Policies or Ordinances Protecting Biological Resources**

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**5.3-E: The project could conflict with policies or ordinances protecting biological resources, such as a tree-preservation policy or ordinance.**

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**Project-Specific Analysis (Project Site and Sand Disposal Sites)**

There are no local policies or ordinances that would protect any of the biological resources on the project site or at the sand disposal sites. Some common bird species have the potential to nest on the project site, although a site survey suggested that no suitable nesting habitat exists on the site (see **Appendix D.1**). Any nests that did occur would be protected by the federal Migratory Bird Treaty Act (see Section 5.3.2). Project construction activities in Phase 1 have the potential to affect those nests adversely because all of the trees on the site would be removed entirely or relocated elsewhere on site. The number of nests affected, if any, would be small and the species affected are abundant and nest throughout the area. Nevertheless, the destruction of active nests would be a significant impact because it would violate an established regulation aimed at preserving biological resources.

*Cumulative Analysis*

Since the proposed project has the potential to impact nests on the project site, the project could contribute to potentially significant cumulative impacts on nesting birds.

**Mitigation Measures***Project-Specific*

**MM 5.3-E.1** During all phases of construction, the City of Newport Beach shall ensure that removal of vegetation or other potential migratory nesting-bird habitat will be conducted outside of the avian nesting season (February through August). If removal of vegetation occurs during the avian nesting season, a preconstruction nesting bird survey shall be conducted no more than 7 days prior to this activity. If migratory birds are found to be nesting within or near the impact area, a buffer where no

construction activities would occur would need to be established by a qualified biologist. This biologist would also determine when the nest is no longer active, at which time construction could resume.

Implementation of MM 5.3-E.1 would eliminate the possibility of the project violating the Migratory Bird Treaty Act restrictions.

*Cumulative*

Implementation of Mitigation Measure MM 5.3-E.1 is required.

**Level of Significance After Mitigation**

*Project-Specific*

No impact

*Cumulative*

No impact.

**Conservation Plans**

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**5.3-F: The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

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**Project-Specific Analysis (Project Site and Sand Disposal Sites)**

The project site and the sand disposal sites are not located in any Habitat Conservation Plan or any other approved local, regional, or state conservation plan. No further action is required pursuant to the NCCP/HCP because there are no species or habitats protected by the Orange County Coastal-Central NCCP/HCP on the site. Implementation of the proposed project would not have significant impacts on any special-status or sensitive plant communities, plants, or terrestrial animal species. Therefore, the project would have no impacts on any habitat conservation plan

**Cumulative**

The project site and sand disposal sites are not located in any Habitat Conservation Plan. Therefore, the proposed project would not contribute to potential cumulative impacts to any Habitat Conservation Plan.

**Mitigation Measures**

*Project Specific*

No mitigation measures are required.

*Cumulative*

No mitigation measures are required.

***Level of Significance after mitigation***

*Project Specific*

No impact.

*Cumulative*

No impact.